

CLAIMS

1. A production method of a functional group-terminated vinyl polymer comprising
 - 5 a step of synthesizing a halogen atom-terminated vinyl polymer by the radical polymerization reaction of a vinyl monomer in the presence of a halogen compound and
 - a step of introducing a functional group to a terminus by substituting a functional group-containing group for the
 - 10 terminal halogen atom of said vinyl polymer,
 - said halogen compound having a structure such that said halogen atom is bound to a carbon atom linked to an aromatic ring and
 - said radical polymerization reaction being carried out
 - 15 either by light irradiation or light irradiation in the presence of a Group 14 to 16 metal compound or by heating in the presence of a Group 14 to 16 metal compound.
2. The production method of a functional group-terminated vinyl polymer according to Claim 1,
 - 20 wherein the halogen compound has two or more halogen atoms.
3. A production method of a functional group-terminated vinyl polymer comprising
 - 25 a step of synthesizing an iodine atom-terminated vinyl polymer by the radical polymerization reaction of a vinyl monomer in the presence of an iodine compound and
 - a step of introducing a functional group to the terminus by substituting a functional group-containing group for the
 - 30 terminal iodine atom of said vinyl polymer,
 - said iodine compound having a structure such that said iodine atom is bound to a carbon atom linked to an aromatic ring and
 - said radical polymerization reaction being carried out
 - 35 either by heating or by heating in the presence of a radical

polymerization initiator.

4. The production method of a functional
group-terminated vinyl polymer according to Claim 3,
5 wherein the iodine compound has two or more iodine atoms.

5. The production method of a functional
group-terminated vinyl polymer according to Claim 1, 2, 3 or
4,
10 wherein the functional group to be introduced into a
terminus is one or more functional groups selected from the group
consisting of hydroxyl, amino, carboxyl, vinyl and silyl groups.

6. A functional group-terminated vinyl polymer as
15 obtainable by the production method according to Claim 1, 2,
3, 4 or 5,

which has a number average molecular weight of 500 to 50,000
and a terminal functional group introduction rate of not less
than 90%.

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